October 14, 2022

Washington State Building Code Council 1500 Jefferson St SE Olympia, WA 98501

Chairman Doan and Members of the State Building Code Council:

We, the undersigned local elected officials, write to strongly urge the SBCC to build on your excellent work updating the Washington state commercial energy code and now adopt the proposed updates to the residential energy code for new construction, which similarly align with our state and local climate and sustainability goals. Specifically, we strongly support the requirements for heat pump systems and stricter ventilation for gas stoves in new homes, which will reduce indoor and outdoor air pollution and ensure that we are building healthy, resilient, and affordable homes, by eliminating gas appliances, particularly for space and water heating, which account for the majority of pollution and carbon emissions from our building sector.

Statewide Clean Codes Are Needed To Support Local Government Efforts

At least a dozen cities and counties in Washington, representing over 1.7 million people, are developing or have implemented climate action plans that commit local resources to curbing dangerous greenhouse gas emissions. ¹ Buildings comprise the second-largest – and fastest growing – component of our state's GHG emissions. In 2018, burning fossil fuels in Washington buildings produced emissions equivalent to nearly 4 million cars or 5 coal plants. Washington state is required by law to achieve a 95% reduction in emissions from 1990 levels by 2050², and we are committed to doing our part. However, unlike with commercial construction, our reading of state law is that cities and counties are preempted from implementing energy codes for residential construction that are more stringent than the state's minimum requirements. Therefore, to meet our climate commitments, we need the SBCC to act again to finish the job and require *all* new buildings across the state to be clean.

Clean Codes Support Our Energy Efficiency and Climate Commitments

Washington is a leader in the clean energy economy. As we continue to move the supply side of our grid to net zero emissions by 2030 and 100% clean electricity by 2045 as required by state law,³ we must also reduce overall demand for energy. Heat pumps, which are 2.2 – 4.5 times more efficient⁴ than electric resistance or combustion gas equipment, can and must play a significant role in keeping our state on track for the 70% reduction in energy use that SBCC is required by law to meet.⁵

The Climate Commitment Act passed in 2021 imposes a steadily declining cap on greenhouse gas emissions to achieve a 95% reduction in by 2050; it will require natural gas suppliers to acquire rapidly declining and thus increasingly expensive pollution allowances, as gas use is phased out entirely over the coming decades. While *existing* gas customers will receive some protection from rate increases under the CCA, it's critical to note that except for low income customers, the act specifically prohibits utilities from using CCA funds for customer bill credits for locations connected to the gas system after next January ⁶. Continuing to add any new

buildings to the gas distribution system therefore means not only locking in decades of carbon and methane emissions and more stranded assets for the gas industry, but also condemning residents of those buildings to ever increasing gas bills, greater fuel price volatility and the likelihood of expensive retrofits in the future. To achieve our climate goals and protect consumers, **our first step must be to stop digging the hole deeper and commit to efficient, electric appliances in every newly constructed building in the state.**

Clean Codes Support Our Economy and Housing Costs

The 2021 Washington State Energy Strategy states that building electrification is "the least-cost strategy" to decarbonize the building sector. In addition, one report estimates that electrifying our building stock would create 5,500 installation jobs in Washington and 80,000 manufacturing jobs nationwide for which our state can compete.

The economic analysis for these proposals⁹ showed that a code compliant all-electric home would save builders \$6,570 upfront compared to a code compliant gas home with a gas furnace, water heater, and air conditioning (increasingly vital in our warming climate, as evidenced by last summer's dramatic and dangerous heat wave¹⁰). The Rocky Mountain Institute's (RMI) Economics of Electrifying Buildings study, as well as several other studies, found that in Seattle, an all-electric home saves both money and 28 tons of CO₂ emissions over a 15-year period¹¹. In addition, even before the recent run-up in energy prices, exacerbated by the Russian invasion of Ukraine, both the EIA and the World Bank forecast significant increases in natural gas costs, but relatively flat electricity costs – making the economic case for all-electric homes even stronger. Combined with the impacts of the phase-out of gas required under the Climate Commitment Act, any new homes built with gas will face ever increasing energy bills and an eventual expensive retrofit. This means that any new gas household we allow heightens the severe risk that we are stranding those families with escalating bills. And those least likely to be able to switch will be low-income households.

Clean Codes Support Healthy Homes and Communities

A recent Harvard study showed that in Washington, burning fossil fuels in buildings was responsible for 52 premature deaths and over \$577 million in health impacts in 2017, based on *just their outdoor air pollution alone*. Combusting gas in furnaces, stoves and ovens releases dangerous air pollutants like methane (CH₄), nitrogen oxide (NOx), carbon monoxide (CO), fine particulate matter (PM2.5), ultrafine particles, and formaldehyde. These pollutants can lead to a range of respiratory, cardiovascular, and neurological health issues - children in homes with gas stoves are 42% more likely to develop asthma symptoms¹². Health burdens related to pollution and other environmental stressors such as extreme heat disproportionately affect low-to-moderate income communities. Our State Energy Strategy has pledged to address these disparities while also ensuring the "equitable distribution of clean energy benefits and reduction of burdens to communities highly impacted by climate change." The SBCC adoption of an energy code that reduces air pollution will empower local communities to repair the historical inequities that are further aggravated by climate change. Moving away from the use of an explosive gas to heat new buildings also reduces the risk of fire and explosions, such as that which occurred in the Greenwood neighborhood of Seattle in 2016¹⁴.

As local elected officials, we are responsible for responding to and supporting our communities during extreme weather events like the recent floods, wildfires, droughts and heat. We are committed to help solve climate change by lowering Washington's greenhouse gas emissions, and to adapt to its effects by making our communities healthier, safer and more resilient.

Prolonging gas use just makes no sense when there are better, cleaner and safer heat-pump options available now, which take advantage of Washington's increasingly clean electrical grid.

For all the reasons mentioned above, we strongly believe the SBCC should adopt the proposed code updates for new residential construction and require heat pumps for space and water heating and increased ventilation for gas stoves, to ensure housing in our communities is sustainable, affordable, equitable, and healthy, now and in the future.

Sincerely,

Claudia Balducci Megan Dunn

Council Chair, King County Council Chair, Snohomish County

Derek Young Melanie Bacon

Council Chair, Pierce County Commission Chair, Island County

Ryan Calkins Lynne Robinson Commission President, Port of Seattle Mayor, Bellevue

Joe Deets Mason Thompson Mayor, Bainbridge Island Mayor, Bothell

Nigel Herbig Cheryl Selby Mayor, Kenmore Mayor, Olympia

Angela Birney Keith Scully
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Jessica Forsythe Lindsey Walsh

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Councilmember, Duvall Councilmember, Edmonds

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Tom Sahlberg Victoria Schroff

Council Member, Liberty Lake Councilmember, Maple Valley

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¹ "Cities with Climate Action Plans," Zero Energy Alliance: https://zeroenergyproject.org/all-cities-with-climate-action-plans/

Washington State Legislature: https://apps.leg.wa.gov/rcw/default.aspx?cite=70A.45.020

³ "Clean Energy Transformation Act" Washington State Dept. of Commerce: https://www.commerce.wa.gov/growing-the-economy/energy/ceta/

⁴ McKinsey Report: https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/building-decarbonization-how-electric-heat-pumps-could-help-reduce-emissions-today-and-going-forward

⁵ Washington State Legislature: https://app.leg.wa.gov/rcw/default.aspx?cite=19.27A.160

⁶ Washington State Legislature, Climate Commitment Act, Section 15(c): https://lawfilesext.leg.wa.gov/biennium/2021-22/Pdf/Bills/Session%20Laws/Senate/5126-S2.SL.pdf

⁷ Washington State Energy Strategy, pg. 67 (2021): https://bit.ly/3kJ5WOH

⁸ Rewiring America, "The Benefits of Electrification,": https://map.rewiringamerica.org/states/washington-wa

⁹ https://sbcc.wa.gov/sites/default/files/2022-

¹⁰ "Hidden Toll of the Northwest Heat Wave: Hundreds of Extra Deaths": https://www.nvtimes.com/interactive/2021/08/11/climate/deaths-pacific-northwest-heat-wave.html

¹¹ "The New Economics of Electrifying Buildings", RMI. https://rmi.org/insight/the-new-economics-of-electrifying-buildings

¹² "Meta-analysis of the effects of indoor nitrogen dioxide and gas cooking on asthma and wheeze in children", Internal Journal of Epidemiology: https://doi.org/10.1093/ije/dyt150

¹³ Washington State Energy Strategy, pg. 22 (2021): https://bit.ly/3kJ5WOH

¹⁴ "Seattle explosion leaves heart of Greenwood neighborhood a gigantic mess": https://www.seattletimes.com/seattle-news/greenwood-explosion-destroys-buildings-injures-9-firefighters/